

REMARKS

This application has been reviewed in light of the Office Action dated January 20, 2010. Claims 8 and 10 to 15 remain pending in this application, of which Claim 8 is in independent form. Favorable reconsideration is requested.

Claim 9 has been withdrawn pursuant to a Requirement for Election. Claim 9 has been amended to maintain consonance to the elected claims, thereby to facilitate rejoinder which is requested below.

The drawings were objected to as failing to comply with 37 C.F.R. § 1.84(p)(5). The Office Action asserts that the drawings include reference character "7" which was deemed not mentioned in the description. First, Applicant notes that Fig. 2 was previously amended by submission of a replacement drawing sheet in the papers filed on September 29, 2009, which removed reference character 7. This drawing was accepted by the Examiner as indicated at page 2 of his Office Action. Accordingly, Applicant does not understand the objection to the drawings and respectfully requests that the objection be withdrawn.

Applicant submits the attached Replacement Sheet which includes a drawing labeled "Fig. 2" to replace the existing drawing sheet bearing Fig. 2. Applicant notes that the Fig. 2 shown on the Replacement Sheet shows a reference character 7. Reference character 7 was shown in Fig. 2 of the application as originally filed on September 10, 2003. Reference character 7 is also described in the paragraph bridging pages 14 and 15 of the specification. See, papers filed on September 29, 2009, at page 5. Accordingly, Applicant submits that no new matter has been added.

The specification has been objected to for allegedly introducing new matter. The Office Action asserts that new matter was introduced in the Response to Notice of Non-

Compliant Amendment of September 29, 2009. The matter deemed to be new matter is the addition of the phrase “controlled by clock signals (MEMO_CLK)” to the paragraph bridging pages 13 and 14. See papers filed on September 29, 2009, at page 4. Applicant submits that the phrase “controlled by clock signals (MEMO_CLK)” is not new matter and is supported at least by Figs. 1 and 2 of the application filed on September 10, 2003. Both of these figures clearly show that memory circuit 3 is controlled by clock signals MEMO_CLK.

In the past, the Examiner has raised a series of objections that some might view as trivial or ill-considered. In this particular instance, it is possible that the Examiner is trying to draw a distinction between “MEMO-CLK” of Fig. 1 and “MEMO_CLK” of Fig. 2, i.e., a distinction between a hyphen and an underscore. Applicant trusts that this is not the case, but if it is, then it is respectfully requested for the Examiner to state such on the record explicitly.

Applicant respectfully requests that the objection to the specification be withdrawn.

Furthermore, in regard to the above-mentioned series of objections, Applicant directs the Examiner’s attention to the attached U.S. Patent and Trademark Office memorandum, dated February 4, 2010, entitled “Non-Compliant Amendment”. That memo encourages PTO examiners to resolve minor deficiencies in Amendments “by placing a quick phone call to the attorney or applicant to gain authorization to make any minor changes needed to correct the deficiency”, rather than issuing a Notice of Non-Compliant Amendment. Applicant has attempted to amend the application with the utmost care. However, if the Examiner believes that this Amendment is non-compliant, he is respectfully requested to contact Applicant’s undersigned representative in order to gain authorization to make any minor changes needed to correct any such deficiency.

Claims 8, 11, and 12 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for lack of antecedent basis for various terms recited therein. Applicant respectfully traverses these rejections. With respect to commencing a dependent claim with the article “The” instead of “A”, Applicant disagrees and notes that the dependent claims exactly follow the recommended format specified in M.P.E.P. § 608.01(n).

At paragraphs 14, 17, 19, and 35, the Office Action asserts that various claims are indefinite because they lack a definite article (“a” or “the”) preceding various recitations of “means”. Concerning means claims, Applicant notes that means claims are interpreted in light of the structure, material, or acts, described in the specification, pursuant to 35 U.S.C. §112, sixth paragraph, and as outlined at M.P.E.P. §§ 2181-2186. The Examiner seems to infer that the word “means” might be singular or might be plural. Such an understanding is incorrect as a matter of law. The significance of the word “means” is defined wholly by 35 U.S.C. §112, sixth paragraph.

Notwithstanding the foregoing, in an effort to avoid further debate, Claims 8, 11, and 12 have been amended in an effort to expedite the allowance of this application. Applicant has carefully reviewed and amended Claims 8, 11, and 12 as deemed necessary to ensure that they conform fully to the requirements of Section 112, second paragraph, with special attention to the points raised in paragraphs 14, 17, and 19-36 of the Office Action. All of the pending claims, including Claims 8, 11, and 12 are seen to comply fully with 35 U.S.C. §112 and are seen to “set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity” when “analyzed, not in a vacuum, but in light of: (A) The content of the particular application disclosure; (B) The teachings of the prior art; and (C) The claim interpretation that

would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made". See, M.P.E.P. § 2173.02.

Claim 10 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for including the recitation "conductivity type". The cancellation of Claim 10 renders its rejection moot.

Claims 8 and 10-15 were also rejected under 35 U.S.C. § 112, second paragraph for omitting "essential structural cooperative relationships" of elements. Applicant has carefully reviewed and amended Claims 8 and 11-15 as deemed necessary to ensure those claims conform fully to the requirements of Section 112, second paragraph, with special attention to the points raised in paragraphs 13, 15, and 18 of the Office Action. It is believed that the rejections under Section 112, second paragraph, have been obviated, and their withdrawal is therefore respectfully requested.

Claims 8 and 10-15 were rejected under 35 U.S.C. § 102(e) over U.S. Patent No.6,628,253 (Hiroki). Claims 8 and 10-15 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,436,635 (Takahara et al, hereinafter "Takahara"). In a back-up rejection, Claims 10, 13, and 15 were rejected under 35 U.S.C. § 103(a) over Takahara. The cancellation of Claim 10 renders its rejection moot. Applicant submits that independent Claim 8, together with the dependent claims, are patentably distinct from the applied reference for at least the following reasons.

Claim 8 is directed to a liquid crystal apparatus. The liquid crystal apparatus includes a liquid crystal device, a drive means for driving the liquid crystal device, and an inversion drive means. The liquid crystal device comprises an active matrix substrate having thereon a plurality of signal lines arranged in columns, a plurality of scanning lines arranged in

rows, and pixel electrodes. The pixel electrodes are each connected via a pixel switch to an intersection of the signal lines and the scanning lines so as to supply positive and negative polarity picture signals to the pixel electrodes via the signal lines. The liquid crystal device also comprises a counter substrate disposed opposite to the active matrix substrate, and a liquid crystal disposed between the active matrix substrate and the counter substrate.

The drive means for driving the liquid crystal device includes a first common signal line for supplying only the positive polarity picture signals to each of the plurality of signal lines. The drive means also includes a second common signal line for supplying only the negative polarity picture signals to each of the plurality of signal lines. The drive means further includes a first transfer switch for connecting one signal line with the first common signal line for selectively supplying only the positive polarity picture signals to the one signal line of the plurality of signal lines. The drive means also includes a second transfer switch for connecting the one signal line with the second common signal line for selectively supplying only the negative polarity picture signals to the one signal line. The one signal line is connected to the first transfer switch and the second transfer switch. The first transfer switch comprises a first transistor of a p-channel type and the second transfer switch comprises a second transistor of an n-channel type.

The inversion drive means, in a first frame, selectively turns on the first transfer switch for the one signal line. The inversion drive means, in a second frame, selectively turns on the second transfer switch for the one signal line.

Among other notable features of Claim 8 are the drive means for driving the liquid crystal device and the inversion drive means. By virtue of these features, only the positive

polarity picture signals are supplied to one signal line of the plurality of signal lines in a first frame by the first common signal line, the first transfer switch, and the inversion drive means, and only the negative polarity picture signals are supplied to the one signal line of the plurality of signal lines in a second frame by the second common signal line, the second transfer switch, and the inversion drive means. Moreover, as described in page 32, line 26 – page 33, line 14, and Figure 17 of the specification, by virtue of the first and second transfer switches the problem of substrate bias effect can be addressed and the entire circuit size and layout area can be reduced.

Hiroki purportedly relates to “a driving method suitable for an active matrix type display which uses a display medium such as a liquid crystal and has a built-in driving circuit, and particularly to an alternating drive method of a liquid crystal panel.” See, Hiroki at col. 1, lines 7-11. Nothing has been found in Hiroki that would teach or suggest the following recited features of Claim 8: “a first common signal line for supplying only the positive polarity picture signals to each of the plurality of signal lines”, “a second common signal line for supplying only the negative polarity picture signals to each of the plurality of signal lines”, “a first transfer switch for connecting one signal line with the first common signal line for selectively supplying only the positive polarity picture signals to the one signal line of the plurality of signal lines”, “a second transfer switch for connecting the one signal line with the second common signal line for selectively supplying only the negative polarity picture signals to the one signal line, wherein the one signal line is connected to the first transfer switch and the second transfer switch”, and “a inversion drive means for: in a first frame, selectively turning on the first transfer switch for the one signal line, and in a second frame, selectively turning on the second transfer switch for the one signal line”. Hiroki also fails to teach or suggest “the first transfer switch comprises a first

transistor of a p-channel type and the second transfer switch comprises a second transistor of an n-channel type”.

The Office Action regards the horizontal signal line segment output from analog video signal 27 (Hiroki, Fig. 8A) as corresponding to the “first common signal line” recited in Claim 8. However, that horizontal line segment is not used for supplying only the positive polarity picture signals to each of the plurality of signal lines. Moreover, Office Action regards the vertical signal line segments between the transfer switches and the horizontal signal line segment output from analog video signal 27 (Hiroki, Fig. 8A) as corresponding to the “second common signal line” recited in Claim 8. However, that vertical line segment is not used for supplying only the negative polarity picture signals to each of the plurality of signal lines.

Takahara purportedly relates to “a display device for forming an optical image thereon by modulating an incident light ray, and in particular to a display system for magnifying and projecting the image formed on the display device”, and “a display system for displaying a video image in recording by means of a video camera or the like”. See, Takahara, col. 1, lines 7-15. Nothing has been found in Takahara that would teach or suggest a liquid crystal apparatus that includes a drive means including a first and second transfer switch and an inversion drive means where “the first transfer switch comprises a first transistor of a p-channel type and the second transfer switch comprises a second transistor of an n-channel type”, as recited in Claim 8.

Accordingly, Applicant submits that Claim 8 is clearly allowable over the applied references, whether considered alone or in any permissible combination.

Upon indication of allowable subject matter, the Examiner is respectfully requested to reconsider his requirement for election, and to rejoin Claim 9.

The other claims in this application depend from Claim 8, and, therefore, are submitted to be patentable for at least the same reasons discussed above with respect to Claim 8. Since each dependent claim is also deemed to define an additional aspect of the invention, however, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

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